

# How to Build a Case For NG Infrastructure



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# NG Fueling Business

- Own & Operate 100 NG Fueling Stations
  - Southwest U.S. and Canada
- Design, Permit, Construct & Operate
  - Core competency
- Provide both CNG & LNG
  - Deliver LNG to 3<sup>rd</sup> Party Facilities
- Grant Services & Administration
  - \$35 million during past 3 years
  - Offset fleets incremental cost and ENRG infrastructure

# Business Needs

- Anchor Tenant
  - Successful Projects are Dependent on VOLUME!
  - 200,000 gallons/year
- Suitable Fleet Site for Station
  - Retail versus Private Back-Lot
  - 24-hour perimeter access at the Fleet Site
    - Separate Business that requires Other Tenants
- Utilities
  - HP Natural Gas Service, >40 psig
  - Electrical Power, 480 Volt, 3 phase, 800+ Amp
  - Telephone

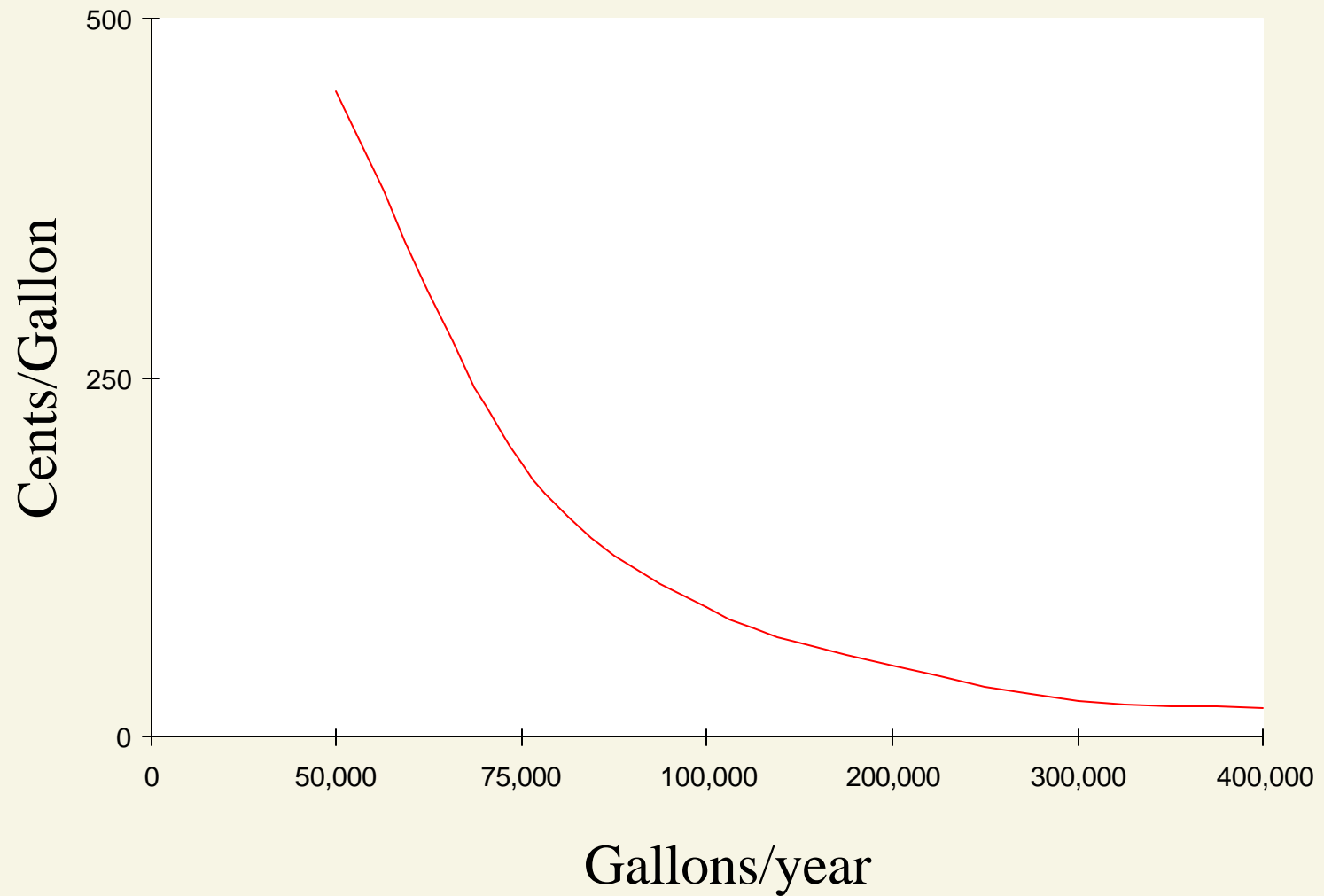
# How to Achieve Success

- Target High Fuel Use Fleets, not retail
  1. Police Cars, 2,500 gallons/year, become taxi in second life
  2. Taxi Cabs, 5,000 gallons/year
  3. Shared Ride Vans, 10,000 gallons/year
  4. Refuse Trucks, 10,000 gallons/year
  5. Intra State Trucks, 20,000 gallons/year
  6. Transit Buses, 20,000 gallons/year
- Special Focus on Airports
  - All segments operate at the nation's largest airports and in most cases make several trips to/from daily
- 7. E450 Cutaway for Hotel & Parking Shuttles, 5,000 gallons/year

# What makes a Station Profitable?

- VOLUME!
- Target 200,000 gallons per year
  1. 80 Police Cars, will not work by itself!
  2. 40 Taxi Cabs
  3. 20 Shared Ride Vans
  4. 20 Refuse Trucks
  5. 10 Intra State Trucks
  6. 10 Transit Buses
- Retail will fail without an Anchor Tenant
  - 100+ Light-duty Commercial Vehicles
  - 100 Urban School Buses
  - 300 Consumers or Light-duty Municipal vehicles

# Volume Effect



# Equipment & Site Needs

- Compressor(s)
  - Minimum of 300 scfm (150 gallons/hour)
  - 4-5 hours/day of continuous run time
- Utility Supply Pressure
  - Higher the better!
  - Capital equipment cost  $f$  (gas supply pressure)
  - Electrical Operation costs  $f$  (gas supply pressure)
  - May be economic to pay extra for a higher pressure tap and recover the investment through lower equipment costs and energy savings
    - Waste Management



# Station Options

- Time Fill
  - Private back lot station w/out PA – fuel while parked overnight
  - Smaller compressor & electric motor
    - Off peak power opportunity
  - Avoid costly dispenser & high pressure storage
  - Still provides limited fast fill capability
  - More complete fill
  - Easier to permit





# Station Options

- Fast Fill
  - High VOLUME, 5+ gpm continuous
  - High Capital & Operation Costs
  - Locate, if possible, near HP NG supply
  - Secure Anchor Tenant w/ Long-term fuel contract

